

Claims

1. An overload clutch having two clutch bodies, one of which is mounted rotationally fixed and the other of which is mounted so it is rotatable on a clutch carrier, and which may be coupled in the axial direction, of which the axially displaceably mounted clutch body is impinged to disengage, and having a holding unit adjustable as a function of the size of the transmitted torque for the clutch engagement, characterized in that the holding unit comprises a switching unit (16), which releases the actuator travel of the displaceably mounted clutch body (12), and which may be actuated by an actuating drive connected to an energy accumulator (23).
2. The overload clutch according to Claim 1, characterized in that the holding unit has a support ring (15), which is axially supported via axial cams (17) on a collar of roller bodies (18) and is coaxial to the clutch carrier (3), and which is rotatable by the switching unit (16) between a lock position and a release position in relation to the roller body collar, delimited by stops.
3. The overload clutch according to Claim 1 or 2, characterized in that the switching unit (16) has a switching disk (20), which is rotatably mounted, delimited by stops, on the clutch carrier (3) and is impinged via springs (24) acting around the circumference as the energy accumulator (23), and a locking unit (25) for the switching disk (20), which may be loosened as a function of the transmitted torque.
4. The overload clutch according to one of Claims 1 through 3, characterized in that the clutch carrier (3) is connected to a driving clutch element under a torque load, acting opposite to the torque of the driving clutch element (1), which determines the transmittable torque, and the actuating drive may be activated as a function of the particular torque acting between the clutch carrier (3) and the driving clutch element (1).

5. The overload clutch according to Claims 3 and 4, characterized in that the clutch carrier (3) and the driving clutch element (1) are connected by at least one bolt (6), which is rotatably inserted into aligned holes (7, 8) of the clutch carrier (3) and the clutch element (1), and the locking unit (25) for the switching disk (20) comprises an eccentric pin (26) of this bolt (6) engaging in a guide link (27) of the switching disk (20).

6. The overload clutch according to Claims 5, characterized in that the switching disk (20) is rotatably connected to a stop disk (32), delimited by stops, the springs (24) of the energy accumulator (23) are clamped between the stop disk (23) and the switching disk (20), and the stop disk (32) is rotationally adjustable in relation to the clutch carrier (3) and/or the clutch element (1) via an actuating eccentric (35) mounted in the clutch carrier (3) or in the driving clutch element (1).

7. The overload clutch according to one of Claims 4 through 6, characterized in that a coaxial torsion rod (5) is clamped under pre-tension between the clutch carrier (3) and the driving clutch element (1).

8. The overload clutch according to one of Claims 1 through 7, characterized in that the output-side clutch body of the two clutch bodies (11, 12) is connected to drive a driven clutch element (28) via a sleeve (29), which encloses the clutch carrier (3), to compensate for angle and alignment errors.